

Abstract

A well logging apparatus is provided having downhole well data acquired by a sensor, transmitted to the surface via complementary modems, and conveyed to the surface modem via a data transmission cable linking the modems, the cable having at least one pair of insulated conductors wound in a substantially helical twist, an insulation sheath surrounding the twisted pair of conductors and a tensile load carrier surrounding the insulation sheath, the load carrier comprising a sheath of tensile load carrying filaments.